Vol III No 1

THE P·T·REVIEW

PUBLISHED BY
THE AMERICAN PHYSIOTHERAPY ASSOCIATION
March, 1923

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Editorials

Dear Members:

The election returns were a great surprise to me, and I have not yet fully grasped the situation.

I thank you most heartily for the confidence you have shown in me, and with every one's help, hope the Association will develop normally, increasing in usefulness as it grows older. That, however, can only be done if every member will realize that she is a cog in the machine without which the whole cannot function.

I am sure the Association has passed through its most troublesome years and too much thanks cannot be given my predecessor for her untiring work in its behalf.

With the best wishes for growth and success,

Affectionately yours,

INGA LOHNE.

PERSONALLY RESPONSIBLE

"EVERY knock is a boost," so says the good old adage, and we hope it will still prove true. We want your honest criticism, it helps us to know what our readers most desire. The aim of the editors has been to make our only official publication, the P. T. REVIEW, a quarterly worthy to stand among the best professional journals, one that every member may be proud of and for which no doctor will refuse to write because of its unprofessional tone.

One of our members writes: "I have heard many discussions about the P. T. REVIEW. The concensus of opinion seems to be that its emphasis should be on the scientific rather than the humorous column and the news items. . . . I met the criticisms of the REVIEW by telling the girls that each and every one of them was personally responsible for its success and should in some way contribute. . . . I want you to understand that I feel that if the REVIEW has not been a success, it is as much my fault and that of every individual member of the Association as those who are directly responsible on the editorial staff."

We have a number of promised articles from well known phy-

sicians, but we must not depend entirely upon these for material, as we know full well how hard it is for a busy doctor to do one thing more. Those who are fortunate enough to have knowledge and years of professional experience should try to take the time to pass on, through the only source of contact, the benefit of their learning, that they may help others to grow in our chosen work. Our little magazine must live, it must not get snowed under, and if you are absolutely unable to contribute in any way, you can at least pay your dues promptly, thus ensuring its publication.

For the sake of "auld lang syne" we have been printing news items about our former buddies, irrespective of the fact they have not joined our ranks, but from now on we will print only bits of gossip concerning members. One reason for continuing this part of the magazine is, that so many have written saying how much they look forward to reading the Here's and There's.

We should like to publish short resumés of good articles on P. T., so if everyone, while reading, will keep this in mind and send us the name of the magazine with its date of publication, we will try to look it up and print a notice, and if possible, where reprints may be obtained.

The editors wish to thank those who have contributed in the past, showing their willingness and desire to co-operate. We have the right spirit and we are getting the team work more and more, which spells—SUCCESS!!!

"It's not the individual
Nor the army as a whole.
It's the everlasting team work
Of every blooming soul."

Treatment of Arthritis by Physical Remedies

Abstract of a Talk Given by DR. CHRIS SAMPSON

TIME does not permit of the extensive discussion of the various remedies used, in the short half hour allotted us today, but at least we may sketch over some of the general principles involved.

A definite understanding of the pathology of the condition to be treated, the various stages of each variety, etc., and, what is of

equal importance, a minute knowledge of the physics involved in the application of each form of physical remedy must be the minimum requirements for the successful use of these remedies in arthritis, as in all other conditions.

First, "itis" in medicine means inflammation. It would take much longer than a half hour to describe this alone adequately, but a brief definition can be given: Inflammation is the specific reaction by which nature attempts to prevent, delimit or repair damage about to be done, in course of being done or done in living tissues, regardless of the cause. Follows the fact that no repair—no matter how slight—is at all possible without the occurrence of inflammation. Therefore it is seen that inflammation is the very keystone in the arch of all therapy. How many kinds of inflammation? Two, adequate and inadequate. Adequate describes itself—sufficient. Inadequate inflammation is followed by one of three eventualities: death of the host, death of the part or chronic disease. A hyperacute, spreading inflammation or one that results in the death of tissues from its very intensity is not excessive inflammatory reaction as it so often taught but is simply evidence that nature is unable to check or control the process and bring about resolution and so is working ahead of it in an attempt to delimit it or, failing this, destroys the area. Often, before one or other of these conditions is completed, absorption of toxic products produces reactions that result in the death of the host. In either case it was an inadequate reaction.

Inadequate reactions then are dangerous to life, limb or result in chronic disease. The longer an inadequate reaction is allowed to persist in a given locality the harder it is going to be to restore function to the part even if the inflammatory reaction can be damped out because all the time there is a fibrositis of that and neighboring areas that tends to become more and more extensive and that continues to do damage after the original cause is removed unless it is removed along with the cause, because as it ages it contracts and gradually puts out of business any functioning structure involved by compressing it, causing pain, loss of function, atrophy or if allowed to continue in the case of a nerve, ultimate degeneration.

The cause must first be removed. If it is infective, the focus or foci must be sterilized or eliminated, etc. We have not time to

go into details. Then we have remaining the inflammatory condition. Chronic inflammatory reactions do not tend to resolve as do acute ones or possibly we should say primary acute ones. If all that we had to do to resolve a chronic inflammation would be to make it an acute one then the problem would be much simplified as there are a number of ways of doing this, but the problem is seldom so simple. If the means we use to make it acute has a solvent action on the fibrosis, will convert a passive congestion into an active one and then make it possible for the active one to properly subside, etc., then it will be an effective means. Luckily we have just such a remedy in the physical field and that is conversive heat. Of the three forms of heat in therapy, conductive, convective and conversive, an extremely large experience has demonstrated that conversive heat is at least twenty times as efficient as convective and one hundred times as efficient as conductive heat. All this is based upon the assumption that it is properly used from a good outfit.

Conductive heat is heat applied to a surface from some heated substance and conducted, more or less, into the tissues. Convective heat is heat thrown onto the tissues from some outside source such as high wattage lamps, resistance coils heated, etc., and conversive heat is energy formed in the very tissues themselves by virtue of the resistance of certain components of the tissues to the passage of a heavy amperage high frequency current through the tissues being treated. By use of a very gentle technique it is possible to cause the formation of large quantities of heat in the tissues without in any way antagonizing the vasomotor reflexes and to hold this high degree of heat there as long as wanted. No area of the body is inaccessible, but of course various modifications must be used in various parts. It would be a very grave mistake to use the same direct application in the same intensity for two such different conditions as arthritis and optic neuritis. The matter of the technique for the use of any form of diathermia—conversive heat—would require hours to explain fully, so this and the tests for proper outfits will be omitted. We must say, however, that a proper technique and a proper outfit are essential for the successful application of this remedy.

Conversive heat acts in several ways. It relaxes tissues, has a marked anodyne property, has a solvent effect upon recent fibro-

sis and a softening effect upon old fibrosis, produces an active, arterial hyperaemia and not only brings more blood to the part, but activates the phagocytes and other elements, increases osmosis, activates enzymes and not only produces vast local effects, but the heated blood (which takes up and carries into the body much of the heat formed), coursing through distant organs activates them as well. Diathermia for these and other reasons has a very marked damping effect upon local "itises." The sedation of irritability in a diathermized area is so great that proper diagnostic tests in areas supplied by injured or regenerated motor nerves cannot be performed for two or three weeks after the area has been diathermized. The irritability of the muscles is so obtunded that it takes many times the irritation of the motor points to get a response that would be sufficient had the area not been diathermized. In addition to bringing in more blood and activating the respiration air processes, the lymphatics and blood vessels leading from the affected area are opened up so that the free flow of blood and lymph is not interfered with. The sedative and relaxant effects make possible to use much more vigorous massage, manipulation and exercises with much less pain than would be possible otherwise. The heat sensitizes the area to X-ray so that smaller doses of the X-ray (used for the chemical ionizing and solvent effect upon fibrosis), will do more than larger doses would otherwise, etc. (None but the smallest doses must ever be used to ionize). If, in addition to the diathermia you use the condenser discharge from the static machine (misnamed the static wave, the Morton wave, etc.) you use a very powerful decongesting agency and utilize in addition the macerating (but absolutely non-traumatic) effect of this great mechanical modality on the finer ramifications of the fibrosis. Combined in this way in this condition the effect of each is intensified and results can be secured that cannot be secured by any other procedure in therapy with which we are acquainted. The proper use of the static also demands an understanding of the physics involved and the use of a definite hookup to secure the best results. This is too long to go into here.

It would be carrying coals to Newcastle for me to attempt to enlarge upon the value or technique of massage, manipulation and exercises to a body of Physiotherapy Aides, so I shall not do so yet. I would not have you think that I underrate its value, because

I have not dwelt upon it; it was not necessary. I would not care to treat—in fact I would not treat—arthritis if I were to be denied the use of *any* of the remedies described. Please do not gather the idea from what I have said that I consider arthritis an easy condition to treat and that the results are always perfect. Water applied at the right time and way, will put out a fire, but it will not restore destroyed timbers, and if the destruction has reached and ruined timbers necessary to uphold overlying structures, then the house is ruined unless repairs are possible. However, the fire department is a necessary precedent to the carpenter. The Physiotherapist is almost always able to control the "itis" in arthritis, but he, nature, the orthopedic surgeon or anyone else may not restore function if the destruction has passed certain stages.

To recapitulate: The remedy that meets more indications than any other single one in arthritis is conversive heat or diathermia. The most valuable adjuncts in the physical field are the static condenser discharge, massage manipulation and exercises, the X-ray in ionizing dosage, the galvanic ionization where the adhesions are superficial and for a most efficient tonic application to increase all the metabolic processes of the body, but especially the oxidation processes, the general application of the ultra-violet ray all over the body to secure maximum absorption, or if you do not have the ultra-violet, then the use of the eliminative hydrotherapy sequence or auto-condensation daily or the application of the hydro and the auto-condensation on alternate days. This alternating of the hydro and the auto-condensation we have found to be better than the use of either singly. Special indications must be met as they arise. There can be no set treatment of any given condition and the treatment of arthritis outlined is for an average case.

Dues

Those everlasting dues are in order. Don't delay them one minute longer if you want your next REVIEW.

"Not to know at large of things remote from us, obscure and subtle, but to know that which before us lies in daily life, is the prime wisdom."—*Milton.*

Physio-therapy Helps Industry

WILL T. KIRK,
Member S. I. A. Com., Salem, Oregon, contributed by
Portland, Oregon Association.

THREE years ago the State Industrial Accident Commission of Oregon established a physio-therapy department for the treatment of industrial accident cases coming under its jurisdiction. This department is now giving approximately 100 daily treatments to injured men.

This work of physical reconstruction is of vital concern to our commission from two standpoints, viz.: the extent to which physio-therapy will hasten and complete recovery, and the financial saving which will result thereby.

From closely observing the development and progress of this work, I am thoroughly convinced we are getting good results from both of the above standpoints. We are hastening and extending recovery and as a natural consequence we are making a financial saving to the industrial accident fund.

When the department was first established, many physicians who had not kept in touch with the development of physio-therapy in connection with the treatment of wounded soldiers during the World War, were inclined to ridicule or joke the work being undertaken. They were not disposed to co-operate with the department by freely referring state patients to the department for treatment.

But from the first the department was able to demonstrate its value by the results obtained, and it was not long until we had won the willing co-operation of practically all physicians handling state compensation cases.

Oregon was the first state to establish such a department as a part of its workmen's compensation system under the direct management of the state industrial accident commission. All men who are injured while subject to the workmen's compensation law are entitled to these treatments, if needed, without any additional cost. As a result of these treatments hundreds of men have been restored to a condition more nearly normal than would have been otherwise possible, and their time loss has been shortened.

These things have won for the department the loyal support of the working men of the state. It has increased their loyalty to

the workmen's compensation system, which makes possible such provision for their care, and also has aided in promoting a better relationship between the men and their employers.

These injured men come from all parts of the state. They come from the logging camps and saw mills, from the road construction gangs and bridge work, from the farms and hay fields, from the factories and building construction, and from many other lines of hazardous employment. They come with all sorts of injuries and conditions resulting from industrial accidents and require a wide range of treatments. The report for last November from the Portland branch of this department shows the classification of injuries for that month was as follows:

Head, neck and face—one fractured jaw, one concussion of brain, three strained neck.

Shoulder and Upper Arm—One strained shoulder, one contusion of shoulder, one fractured scapula, one fractured humerus and musculo spinal paralysis, two fractured humerus.

Forearm — One fracture both bones, one Colles fracture, one laceration.

Wrist—One sprain, one dislocation.

Hand—One contusion.

Fingers—Two amputation, one fracture, two severe sprains, one crushing injury.

Back—One torn ligament, two severe contusions, one sacroiliac strain.

Trunk—One body bruises.

Pelvis—One fracture.

Thigh—One compound fracture, one periostitis over internal condyle.

Knee—One fractured patella, two strain, one removal of foreign body, one strain internal lateral ligament, one tear of internal lateral ligament.

Leg—One Potts' fracture, one fractured fibula, three fracture both bones, one compound fracture both bones, one fractured internal malleolus.

Ankle—Two wrenched, one tenotomy.

Foot—One fractured metatarsal.

Prescriptions given for the same month were as follows; Radi-

ant heat 39, massage 47, exercise 26, hydro 6, electric 2; braces—Sacroiliac belt 2, knee 1, arm 1; casts—cock-up 2, leg 1; special examination—neurological 1, back 1, hand 1; X-ray 16; shoe alterations 5.

Our department is perhaps better equipped than any other department in the country outside of the large government hospitals. Our experience indicates that if one is going to undertake this work at all, on a large scale, it pays to have all the equipment necessary to meet the needs of the various types of injuries which must be treated. We are well pleased with the results of our three years of this work, and believe that physio-therapy is destined to occupy an important place in the treatment of all industrial injury cases coming under workmen's compensation laws in the various states.

HYDROTHERAPY

By MRS. OREON

Hydrotherapy (water-cure). Its effects are produced:

(1) by cleansing the skin and stimulating it to greater activity.

(2) by temperature—heat or cold, affecting the skin through the nerve and blood supply.

(3) by mechanical effect, water under pressure striking the skin and by rubbing before, during, or after the bath.

Water is applied for these purposes or results either locally by compresses or fomentation, that is, cloths wrung out of water, or to the whole body by immersion, and by streams of running water called "douches."

Reaction. In order to be of benefit, a bath must produce what is known as a "reaction." This reaction is obvious both to the patient and to the operator by a healthy pink color of the entire body. The skin of the patient is in a "glow"; he feels stronger in body and happier in mind. If the skin becomes cold and clammy, or pale, that is, if the patient fails to "react" well, it shows that the bath chosen is unsuited to that particular case. In order to understand this reaction, it is necessary to review the anatomy and physiology of the skin with its abundant supply of elastic tissue, its nerve supply, and their combined influence on blood supply, excretions and glandular action.

An analysis of the reaction also shows elements contributed from the structures we consider under the function of (1) protec-

tion; (2) heat regulation; (3) elimination; (4) circulation. The bundles of muscle fibres under the skin may contract. In this case the numerous blood vessels are compressed and emptied; the skin becomes pale and may feel cold. On the contrary, the muscles may relax and the blood vessels become distended with blood. This brings the blood to the surface, and the skin is flushed and is warm. The amount of blood in the fully dilated skin vessels is so great that it has a market effect on the general blood pressure. This change in the distribution of the blood in the body may be of use either to the heart and blood vessels themselves, or to some organ or group of organs, by relieving congestion. It has also a marked effect in alleviating pain.

Nerves. It is through the reflex action of the nerves that most of the results of hydrotherapy are brought about. The most marked stimulation is produced by extremely hot or cold water, especially if used alternately. With the majority of patients, however, these extremes of temperature cannot be used to begin with, without great discomfort or danger. By beginning with mild procedures and gradually introducing more vigorous ones, the skin learns to react, and the effect is pleasant and beneficial. This training of the skin has been called "neuro-vascular" education, and is of very great importance.

The reflex action produced by water dashed on the skin is far reaching. Beside the changes in the blood supply of the skin there are involuntary deep gasps, the heart beat is quickened, and there is a contraction of the large body muscles, and a marked, though invisible stimulation of internal organs. By repeating these stimulations, day after day, the whole body machinery is speeded up, there is need for more food, which means a better appetite, and the patient gains in weight and strength.

Respiration. When a stream of cold water strikes the chest, the muscles of respiration at once show marked action. The "breath is caught" in several quick gasps until the chest is fully inflated. For some minutes afterwards, breathing continues deep and fast. This increases the oxygen in the blood, and the lessened amount of carbonic acid gas expired also stimulates the respiratory center. Breathing becomes slower. Repeated from day to day this process

has the effect of vigorous breathing exercises, increasing the actual working capacity of the lungs.

Temperature. In elevated temperature or fever, baths have been very much used to control body temperature. They do this directly by abstracting heat from the body, and what is of greater importance, by stimulating the heat-regulating apparatus, skin, vascular and nervous systems to more healthy action. To reduce temperature, a bath should be tepid or cool, and in exceptional cases only should be cold. The reason for this is that the stimulation and increased metabolism following the cold bath is so great that the secondary reaction results in heat production, hence this treatment is made use of when treating patients with subnormal temperatures.

Nerve Stimulation and Sedation. Aside from their effects on the nervous system in general, baths may be used with beneficial results on individual nerves. The effects of hot or cold applications to the spine, while reaching the central nervous system also have a considerable action on the nerves which radiate from the spine in the various segments and are distributed throughout the body. Water applied along the trunks of nerves has a powerful action, not only by means of heat and cold, but also from the mechanical action of its impact. This treatment is used after various nerve injuries. Its use is based on the knowledge that the nerve trunk, even after being completely out, will grow again, if the nutrition is kept up.

Sedation. Sedation, or the relief of pain, occurs by changing the distribution of blood supply. Often much of the pain is the result of pressure from distension of the blood vessels which supply the nerves. Baths, especially those with friction, dilate the skin vessels overlying the nerves. This relieves the pressure, and so lessens the pain.

Internal Organs. Baths influence internal organs by modifying their blood supply, which lessens pain and inflammatory reaction and by stimulating their muscular and secretory activity. The former may be illustrated by the comfort given a patient by the application of the chest compress in pneumonia, and the hot spray in inflammation of the kidneys, also in the stimulating action in indigestion accompanied by constitpation.

Pain or congestion in one organ may be modified by local bath-

ing of a part of the body remote from the organ, as for example, the use of the Sitz bath in congestive headache or a cold in the head.

Excretion. Baths, by increasing the activity of all the tissue cells, increase the demands on all the organs of excretion. Besides this, they directly and reflexly stimulate these organs to greater activity. The movement of the intestines is more vigorous, the output of the urine by the kidneys is increased, respiration is deepened, thus securing a greater respiratory exchange, and the action of the skin is most marked. This is of the greatest importance in kidney diseases, in which the disturbed organ is unable to take out of the blood the poisonous substances it usually eliminates. Vigorous sweating will eliminate part of these substances, affording relief to the overworked kidney, and allowing it the necessary rest. In severe cases, this may give relief enough to mean the difference between life and death to the individual. In less urgent cases, the eliminative action of the skin is still of great importance. The tonic bath, while not securing the intense action of the hot packs and immersion baths, have a prolonged action and tend to restore the normal condition of excretion. Proper excretion by one organ lessens the elimination necessary for the others.

BODY MECHANICS AND HEALTH

By LEAH C. THOMAS and JOEL E. GOLDTHWAITE, M.D.

Boston: Houghton Mifflin Company, 1922.

Body Mechanics and Health—its authors are too well known to all physiotherapists to need comment—is a thesis in which the fundamental principles of body mechanics are stated very clearly, and progressive exercises given for attaining the highest form of physical and mental efficiency through a well-poised, easily balanced and erect body, eliminating undue strain and waste of energy.

Physiotherapists as well as teachers of physical education will find in this work a great deal of material for constant use. No one in this profession ought to be without the book as we must be able to apply the principles of body mechanics to ourselves and through our own efficiency set an example and be an inspiration to our pupils or patients.

Physiotherapy in the Treatment of Children With Rheumatic Fever

California State Medical Journal, October, 1922. Volume 20, No. 10.

By E. BRONSON, M. D., and G. BOVILL, Technician

(Read before Pediatrics Section of the California State Medical Association. May, 1922.)

Physiotherapy attempts to preserve and increase the usefulness of the compensatory action between the circulatory, respiratory, metoboliic and nervous systems by a system of carefully graded exercises. The training of the cardiac child is not unlike that of the athlete. He is taught relaxation, to breath, correct posture, and the routine work of childhood with co-ordinated and not wasted effort.

An outline of the method of treatment is presented below.

NOTE: Once a week, pulse, respiration and systolic blood pressure to be taken before exercise, immediately after and again in 2 minutes. If a child seems over tired, or in any way reacts badly, a special record of pulse, respiration and blood pressure should be made with a description of symptoms. The house doctor should be notified. If a case progresses well, each stage may last a week. If for some reason, a stage should continue for a longer interval, special orders will be given.

CARDITIS

First Stage (Ten Minutes Twice Daily)

Started as soon as pain subsides.

1. Effleurage to arms and legs.

2. Teach *correct* breathing. When possible include abdominal massage for five minutes.

Second Stage. (20 to 25 Minutes Daily)

1. Effleurage and light Petrissage (to extremities and back or abdomen).

2. Passive arm movements with breathing.

3. Passive leg movements—gradually adding active ankle and knee flexion and extension.

Each exercise to be done 3 to 5 times.

When possible increase active work. Do one arm, including

exercises, before massaging the next. In bad cases do arm, then leg.

Third Stage. (30 to 40 Minutes Daily)

1. Massage (medium) general.
   (a) Effleurage—Petrissage—Friction—Tapotement.
2. Light resistive and increase gradually.

Exercises given for every joint movement and each exercise repeated three to eight times.

3. Deep breathing.

EXERCISES

Fourth Stage. (40 to 45 Minutes Daily)

1. Active exercises in bed.
2. Start standing—*teaching posture.*
3. Heel raisings, arm exercises with breathing for a couple of days, then add trunk bendings and twistings and leg exercises, gradually increasing at the rate of 1 to 2 daily.

Fifth Stage. (45 to 60 Minutes Daily. According to Age and Strength of Child)

1. Vigorous exercise, including stair climbing, running and jumping.

CHOREA

First Stage

To start immediately on admission to Hospital.

1. Effleurage to extremities and back or abdomen.
2. Teach breathing as soon as possible.

Second Stage

1. Effleurage and light Prestissage (to extremities, and back or abdomen).
2. Passive movements, combined with breathing.
3. Assistive—active exercises.
   (a) For co-ordination.
   (b) For re-education.
   (c) For rhythm.

Third Stage

1. Massage (medium) general (no tapotement).
2. Active exercises with breathing.

3. Active exercises, especially for back (assisted at first).
   (a) For co-ordination.
   (b) For re-education.
   (c) For rhythm.
4. Chorea tests.
5. Singing vowel sounds.

Fourth Stage

1. Active exercises in bed.
2. Start standing, *teach posture*. Begin with easy exercises and gradually increase, not allowing an unassisted movement until child has balance and confidence.
3. Con't. 4, 5 and 6 of Stage Three.

Fifth Stage

1. Vigorous gymnastics. Prepare to go home.

HERE AND THERE

Mr. and Mrs. Robert Garrison have a baby girl, Jane Crammer Garrison, born Jan. 20, 1923, Denver, Col.

C. Grace Courter is now at Veteran's Bureau, Newark, N. J.

A class of eleven aides in Physiotherapy was graduated at Walter Reed General Hospital, Washington, D. C., on Feb. 7, 1923.

Mr. Oscar Nissen, who for some years has been director of the Posse Normal School of Gymnastics, as well as director of the Massage Department at the Boston City Hospital, has opened a physiotherapy studio at 551 Boylston Street, Boston, Mass.

The University of Oregon Medical School is opening a P. T. clinic for crippled children and a number of ex-army aides are volunteering their services.

Miss Marguerite Sanderson was married to Lieutenant Commander Harold Travis Smith on November 13, at Tacoma, Washington. The wedding was a very quiet affair, owing to the recent death of Mrs. Smith's father.

New Members

Fitzgerald, Claire, U. S. V. H., No. 79, Dawson Spring, Ky.
Caleen, Lucile, Station Hospital, Ft. Sam Houston, Texas.
Kylin, Emmy, Lakeside Hospital, Cleveland, Ohio, Association for the Crippled and Disabled.
Kibling, Mary, N. C. Orthopaedic Hospital, Gastonia, N. C.

Neel, Doris, 419 Pacific Mutual Bldg., Los Angeles, Cal.
Wright, Catherine, 133 N. Oxford Ave., Los Angeles, Cal.
Bigelow, Mary, 245 Pawling Ave., Troy, N. Y.
Volland, Doris, 535 Beacon St., Boston, Mass.
Pelton, Russello, U. S. P. H., No. 76, Maywood, Ill.
Gleason, Lillian, 46 Brooks St., West Medford, Mass.
Cuffe, Agnes, 58 High St., Newburyport, Mass.
Vail, Ruth, 3 Villa Court, Hampstead, N. H.
Wright, Jessie, Sunny Hill, Leetsdale, Penn.
Kelly, Mae, 702 Hodge Ave., Ames, Iowa.
Pickett, John, 5 Granite St., Somerville.
Burns, Thomas, 419 Boylston St., Boston, Mass.
Fadner, Lydia, 6010 Cummings Ave., Superior, Wisconsin.
Kingman, Alice, 11432 Mayfield Rd., Cleveland, Ohio.
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Pyper, Florence M., 2619 Cass Ave., Detroit, Mich.
Neff, Pauline, 21 Wendell St., Cambridge, Mass.
Evans, Mildred, 139 Woburn St., West Medford, Mass.

S. O. S.

Wanted—ex-service P.T. wishes position. Since the war has been with prominant orthopedic surgeon. Please write to B— care of editor-in-chief.

Any member of the A.P.T.A. is at liberty to try for the position which will be vacant in April, of Assistant P.T. in the Philadelphia General Hospital, 34th and Pine St., Phil. Penn. Write to Marie Paul.

P. T. will substitute or do private work in any eastern city. Write to Greta Wedin, 2242 Polk St., San Francisco, Cal.

ELECTION OF OFFICERS FOR 1923–1924

President—Inga Lohne, Boston, Mass.
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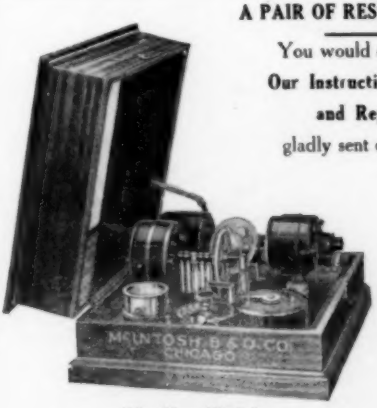

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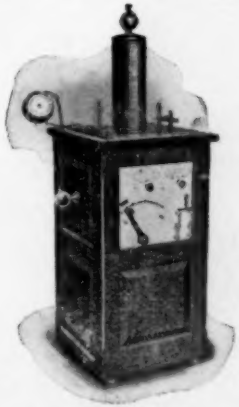

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